

PN - JP63228076 A 19880922
PD - 1988-09-22
PR - JP19860194378 19860820
OPD - 1986-08-20
TI - DIGITAL PERIOD MEASURING INSTRUMENT
AB - PURPOSE: To accurately measure the period of a signal without increasing a sampling frequency by detecting the zero point of the signal in sampling cycle units, and calculating a frequency error by using amplitude values at two points on both sides of the zero point of the signal. CONSTITUTION: A zero-cross detector 1 detects the zero point of the signal in sampling cycle units and resets a counter 2, so the value of the counter 2 right before the resetting indicates the length between zero points of the signal, i.e. a cycle while the sampling cycle is regarded as 1. The cycles of the signal measured by the counter 2 are in sampling cycle units, so they have an error as compared with real cycles and an error arithmetic circuit 3 calculates the error by using the amplitude values at the two points on both sides of the zero point, and a latch circuit 7 stores the error temporarily. There are two zero points before and after one cycle, so the error is present at the two zero points. The input and output of the circuit 7 represent two errors, which are processed with the output of the counter 2 by addition and subtraction to measure cycles with high accuracy.

IN - SASAKI MIKIO; SOBASHIMA AKIRA
PA - MATSUSHITA ELECTRIC IND CO LTD
IC - G01R23/10; H03D3/00; H03K9/04

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TI - Digital frequency measuring unit - has zero crossover detector, zero-point counter latch, arithmetic circuit and temporary-storage latch circuit NoAbstract
Dwg 1/3

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